

We claim:

1. An absorbent article comprising an absorbent body enclosed between a liquid-permeable liner sheet layer and a liquid-impermeable backsheet layer;
5 wherein the article has a longitudinal axis, a relatively wide anterior end and an opposite posterior end connected by side margins to define a generally triangular shape; the side margins substantially continuously converge to the posterior end; at least one tab extends from each side margin; and at least one attachment element is associated with each tab, the at least one attachment element aligned oblique to the longitudinal axis of the article/having a major axis oriented at an angle that is
10 oblique to the longitudinal direction.

2. The absorbent article of claim 1 wherein the side margins have an inner edge that is substantially straight.

15 3. The absorbent article of claim 1 wherein only one tab extends from each side margin.

20 4. The absorbent article of claim 3 wherein only one attachment element is associated with each tab.

5. The absorbent article of claim 4 wherein the attachment elements are affixed to the tabs.

25 6. The absorbent article of claim 1 wherein each attachment element comprises an adhesive portion.

7. The absorbent article of claim 6 wherein the adhesive portion is protected

by a release liner.

8. The absorbent article of claim 1 wherein the article has a thickness of less than about 5 mm.

5

9. The absorbent article of claim 1 wherein the liner sheet layer and backsheet layer are joined at the side margins.

10. The absorbent article of claim 1 wherein the at least one tab is spaced from the anterior and posterior ends.

11. The absorbent article of claim 10 wherein the at least one tab is centrally located along the side margin.

15 12. A method of placing an attachment element onto an absorbent article at an angle that is oblique to a machine direction, the method comprising the steps of:

- a) separating a first attachment element from a first supply of attachment material that is aligned in a machine direction;
- b) rotating the first attachment element from the machine direction to a predetermined angle that is oblique to the machine direction;
- c) indexing the first attachment element to an absorbent article moving in the machine direction; and
- d) applying the first attachment element to the absorbent article.

20 25

13. The method of claim 12 further comprising the steps of:

- e) separating a second attachment element from a second supply of attachment material that is aligned in a machine direction;

- f) rotating the second attachment element from the machine direction to a predetermined angle that is oblique to the machine direction;
- g) indexing the second attachment element to the absorbent article moving in the machine direction; and
- 5 h) applying the second attachment element to the absorbent article.

14. The method of claim 13 wherein the first and second attachment elements are processed simultaneously.

10 15. The method of claim 12 comprising rotating the first and second attachment elements in opposite directions.

16. The method of claim 13 comprising rotating the first and second elements to an equal degree from the machine direction.

15 17. The method of claim 12 further comprising applying an adhesive onto a continuous web of release liner material to form the first supply of attachment material, and the first attachment element is an adhesive portion disposed on a release liner.

20 18. The method of claim 17 wherein the adhesive portion comprises a pressure sensitive adhesive.

25 19. An absorbent article comprising an absorbent body enclosed between a liquid-permeable liner sheet layer and a liquid-impermeable backsheet layer; wherein the article has a longitudinal axis, a relatively wide anterior end and a posterior end connected by side margins to define a generally triangular shape, the article further comprising at least one tab extending from each side margin, and the

article being formed by a process comprising the steps of:

- a) separating a first attachment element from a first supply of attachment material that is aligned in a machine direction, parallel to the longitudinal axis of the article;
- 5 b) rotating the first attachment element from the machine direction to a predetermined angle that is oblique to the machine direction;
- c) indexing the first attachment element to the absorbent article moving in the machine direction; and
- d) applying the first attachment element to the at least one tab of

10 absorbent article.

20. The absorbent article of claim 19 formed by a process comprising the further steps of:

- e) separating a second attachment element from a second supply of attachment material that is aligned in the machine direction, parallel to the longitudinal axis of the article;
- 15 f) rotating the second attachment element from the machine direction to a predetermined angle that is oblique to the machine direction;
- g) indexing the second attachment element to the absorbent article moving in the machine direction; and
- 20 h) applying the second attachment element to the a second tab of absorbent article.

21. The absorbent article of claim 20 wherein the first and second attachment elements are symmetrical about the longitudinal axis.

25
22. The absorbent article of claim 19 wherein each attachment element comprises an adhesive portion.

23. The absorbent article of claim 22 wherein the adhesive portion is protected by a release liner.

5 24. The absorbent article of claim 19 wherein the article has a thickness of less than about 5 mm.

25. The absorbent article of claim 19 wherein the liner sheet layer and backsheet layer are joined at the side margins.

10 26. An apparatus for placing at least one attachment element onto an absorbent product at an angle that is oblique to a machine direction, the apparatus comprising:

15 a) a frame;
b) a fixed cylindrical camshaft mounted on the frame and having a central axis and at least one fixed cam track;

c) a revolving cylindrical anvil sleeve mounted on the fixed cam shaft; and,

20 d) at least one rotatable disk having a cam follower arranged and configured to engage the at least one fixed cam track, being disposed at the surface of the anvil sleeve, and being capable of placing the at least one attachment element onto the absorbent product;

25 wherein the frame, camshaft, and anvil sleeve define a machine direction and the at least one rotatable disk is rotated to a predetermined angle that is oblique to the machine direction when the anvil sleeve is in position to place the at least one attachment element onto the absorbent product.

27. Apparatus of claim 26 which further comprises a vacuum manifold

associated with the anvil sleeve to provide vacuum force to hold the at least one attachment element on the at least one rotatable disk.

5 28. Apparatus of claim 27 which further comprises vacuum holes aligned on the at least one rotatable disk in fluid communication with the vacuum manifold.

29. Apparatus of claim 27 which further comprises vacuum holes aligned on the anvil sleeve in fluid communication with the vacuum manifold.

10 30. Apparatus of claim 26 which further comprises a knife roller comprising at least one knife, the knife roller supported by the frame such that the at least one knife is arranged and configured to engage the anvil sleeve to separate a first attachment element from a first supply of attachment material.

15 31. Apparatus of claim 30 which further comprises an adhesive applicator associated with the first supply of attachment material.

20 32. Apparatus of claim 26 wherein the camshaft has a pair of fixed cam tracks and at least one rotatable disk of the anvil sleeve is associated with each fixed cam track.

33. Apparatus of claim 32 wherein the fixed cam tracks are symmetrical across a plane bisecting the central axis of the cylindrical camshaft.

25 34. Apparatus of claim 33 wherein a pair of rotatable disks are located at identical radial angles from a reference point on the cylindrical anvil sleeve, one disk of the pair associated with one of the fixed cam tracks and the other disk associated with the other cam track.

5

35. Apparatus of claim 34 wherein pairs of rotatable disks are located at equal angular spacing on the cylindrical anvil sleeve, one disk of each pair is associated with one of the fixed cam tracks and the other disk associated with the other cam track, and the disks of each pair are located at identical radial angles on the cylindrical anvil sleeve.

10

36. Apparatus of claim 32 which further comprises a knife roller comprising at least one knife, the knife roller supported by the frame such that the at least one knife is arranged and configured to engage the anvil sleeve to separate substantially simultaneously a first attachment element from a first supply of attachment material and a second attachment element from a second supply of attachment material and wherein the first attachment element is associated with one disk of the pair and the second attachment element is associated with the other disk.

15

37. Apparatus of claim 26 which further comprises a pressure roller mounted on the frame arranged and configured to interact with the anvil sleeve to define a nip in which the at least one attachment element can be placed on the absorbent article.

20